

AFC 2.0

Update to the Fiscal & Management Control Board

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Today's AFC 2.0 Update

- Plans for supporting cash payments
- Policy outreach updates
- User testing



How we will ensure access for cash users

Overview of AFC 2.0 Point of Sale Strategy:

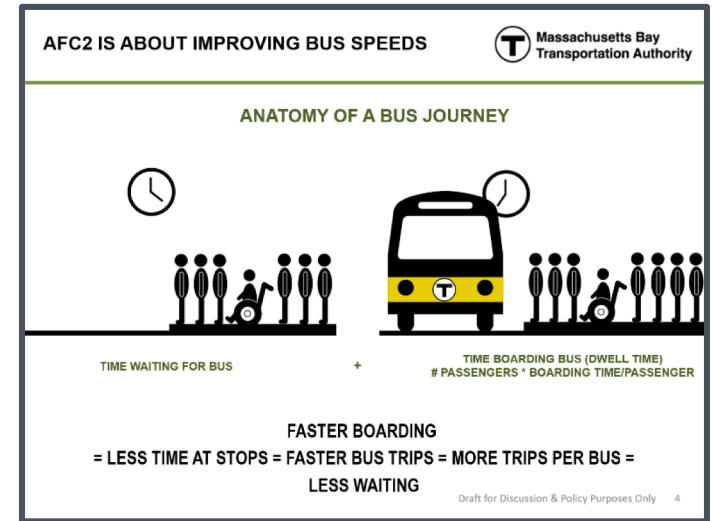
- New Ways to Pay
 - Retail Partners
- Point of Sale Network



What we're hearing

- The public wants the operational benefits achieved through all-door boarding and the removal of cash onboard.
- However, there is significant concern about the potential impact of the removal of cash payments onboard on low-income and transit dependent customers.

Goal: Make buses and trolleys faster and more dependable while increasing access and not disadvantaging cash users.



Excerpt from June 27, 2016 AFC2
Update to FMCB












Ways to add value to accounts in AFC 2.0

New ways to pay will decrease number of users needing physical points of sale:

- Website
- Mobile app
- Call center agents and automated responses
- Increased options for employer or school



Point of Sale Network*

	Station FVM	Bus Stop FVM	Retail	Agency Partners	Call Center	Smartphone	Online
	 	 	 	 			
What method best serves each community?							

**All of the Points of Sale will accept cash*

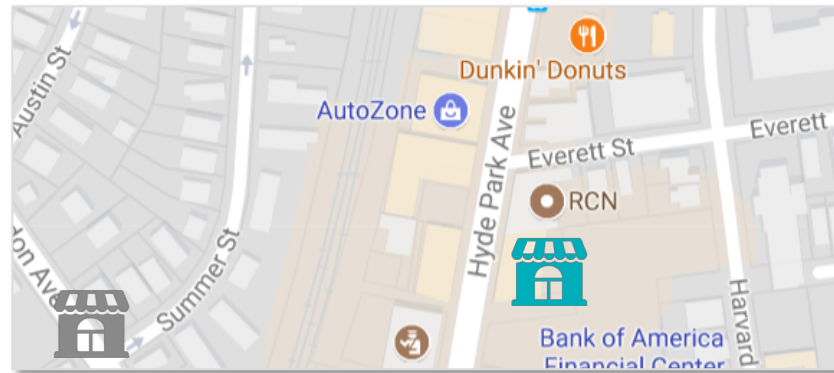
 Cash accepted

 Credit/debit accepted

Retail Partners

A network of stores such as drug chains, convenience stores, newsstands, fast food, independent retailers, and coffee shops

- Located throughout the MBTA service area
- Need to be open during core MBTA service hours
- Need to be accessible to customers in wheelchairs
- Customers can buy a Charlie Card or add value to a plastic or virtual Charlie Card
- Customers can find retail locations and hours through the website, mobile app or call center



Retail Partners

Options for different types of retail partners

Multiple options for retailers to connect to the system:

1. Handheld sales terminal

- Android-based app
- Works alongside the retailer's existing register

2. App for tablet-based sales terminals

- For retailers already using the Clover tablet
- Leveraging hardware already in use at many small retailers

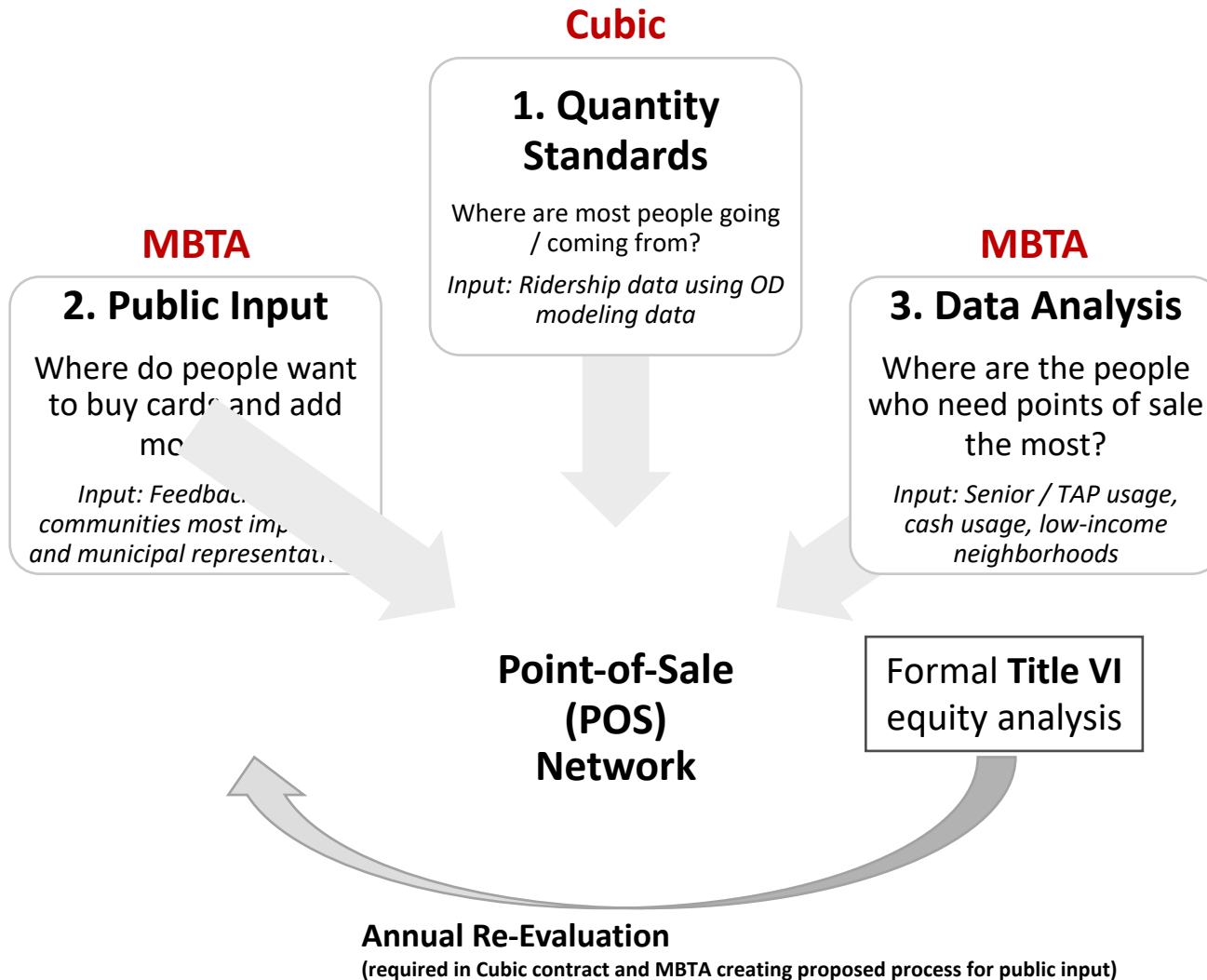
3. Integrate with proprietary sales terminal

- Cubic will develop APIs to connect directly to the sales systems of large chain stores



How we're locating Points of Sale

POINTS OF SALE INCLUDES FARE VENDING MACHINES AND RETAIL



1. Quantity Standards for Points of Sale

THE QUANTITY STANDARDS ARE WHAT CUBIC IS CONTRACTUALLY REQUIRED TO PROVIDE REGARDING POINTS OF SALE (RETAIL OR FARE VENDING MACHINE). THERE ARE TWO PARTS: REQUIRED LOCATIONS + GENERAL RIDERSHIP COVERAGE.

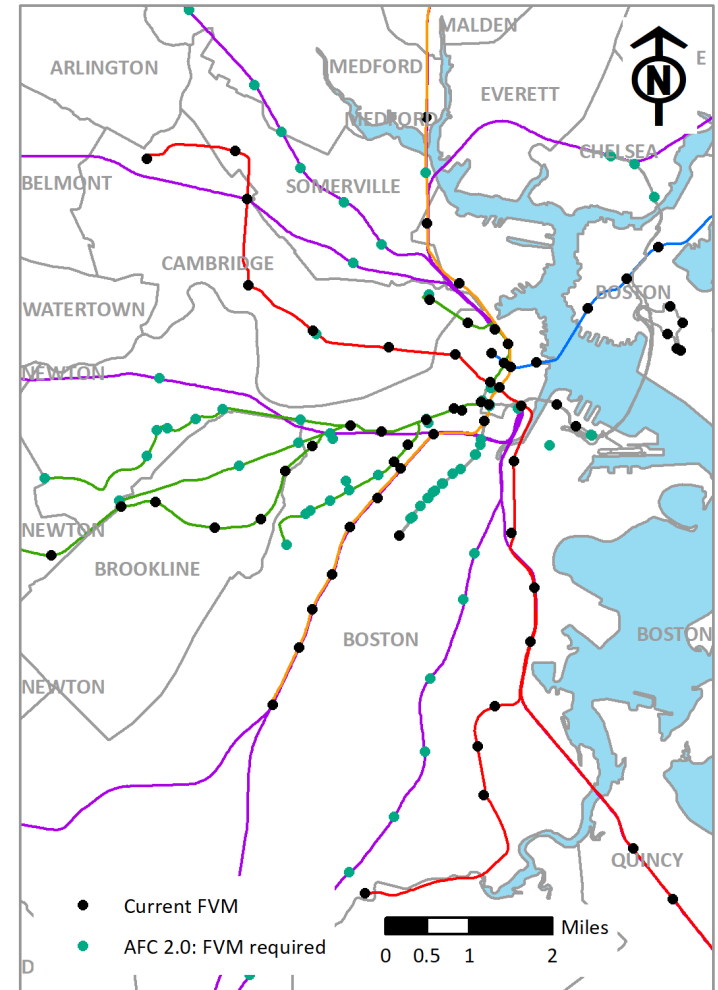
FVM Required Locations

- **Start by installing fare vending machines everywhere AFC 1.0 machines are currently**
- **Install at select additional CR stations** (All Zone 1A stations + Highest inbound ridership)
- **Add select Surface Light Rail** (Green Line, Mattapan trolley)
- **Add Silver Line stops** (Every stop on SL1, SL4, SL5)
- **Add high ridership bus stops**
- **86 current locations → 178 required locations (106% increase)**

Ridership Requirements (FVM or Retail)

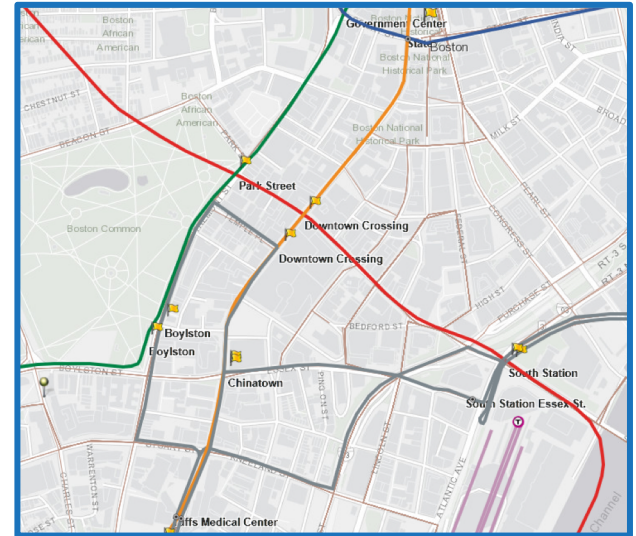
- Cover **95%** of trips in the system within **1000 feet**
- Cover **98%** of trips in the system within **2000 feet**

Required locations before ridership analysis



2. Public Input

- Focus groups with community organizations and riders
 - Focused on seniors, persons with disabilities, cash users, low-income, limited English speakers, and youth
- Online Tool for Public Input on AFC 2.0 Points of Sale
 - www.mbta.com/afc2-locations
- Meetings with municipal officials and elected representatives
 - Senior Centers/Elder Services/Councils on Aging
 - School Committees
 - Planning/Zoning
 - Housing
 - Youth Commissions
 - Health & Human Services



**Tool for Public Input on
AFC 2.0 Point of Sale**

3. Data Analysis

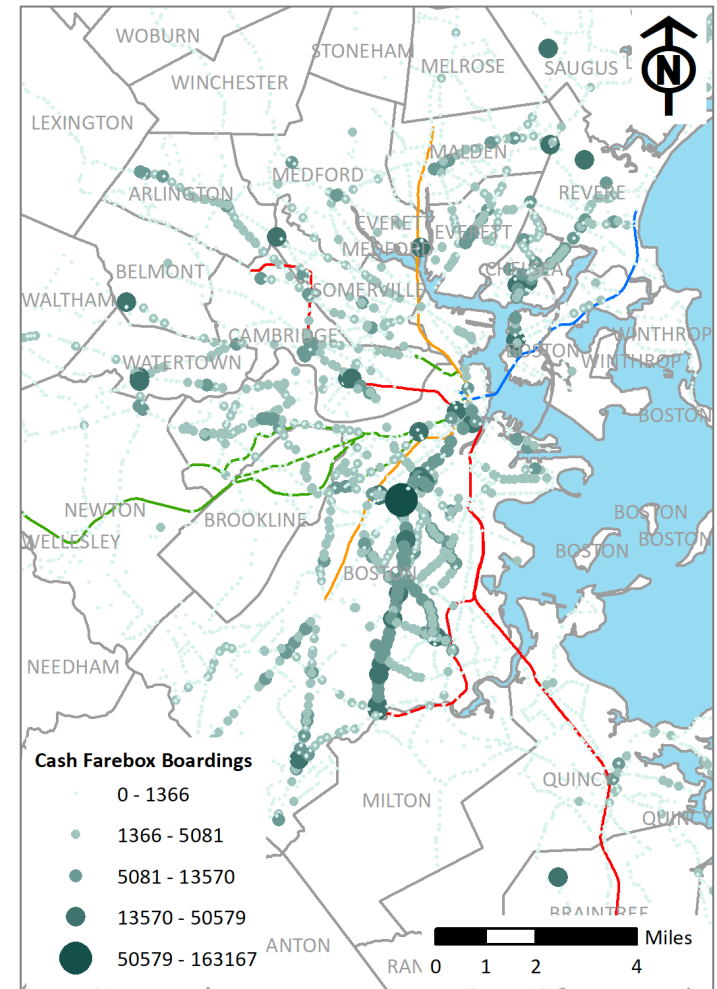
Data Analysis

Using data on current usage of:

- cash onboard
- Senior Pass, T.A.P. cards, students
- bus/surface Green Line only riders
- late night/early trips
- Census data (e.g., low-income communities)

This analysis will help us find and prioritize high need locations.

Cash boardings at bus, Green Line, & trolley fareboxes



How does this all come together?

- The data analysis will be compared to Cubic’s proposal for locations to identify potential holes based on where we expect riders will need points of sale the most.
- We will use this and the public input to prioritize any additional FVMs in the reserve allocation in the contract.
- We will conduct a Title VI equity analysis of the proposed network to ensure equity of access.
- We are also developing a process for annual reevaluation and public input.

The process of identifying points of sale will be iterative between the MBTA and Cubic as Cubic recruits retailers.

Status of Physical POS Network Planning

	Type of POS	Responsible for Planning	Status
Required Locations	FVMs	Cubic (with MBTA review)	Complete
Ridership Coverage	Retail + FVMs	Cubic (with MBTA review)	In Progress
Supplemental Locations	FVMs	MBTA	In Progress

Outreach Plan for 2019



2019 Policy Outreach Plan

THE OUTREACH ACTIVITIES AND EVENTS LISTED WILL INFORM THE DEVELOPMENT OF POLICY DELIVERABLES

Policy Focus Areas

- **Privacy Policy**
 - Deliverables: Principles for data privacy, revised privacy policy
Outreach: late Spring 2019
- **Access to Fare Cards and Sales Locations**
 - Deliverables: Point-of-sale network map, plan for reevaluating the POS network, program plan for distributing fare cards without a cost
Outreach: ongoing
- **Fare Inspections**
 - Deliverables: Principles for fare inspections, fines and adjudication process
Outreach: Kickoff in April 2019
- **Fare Structures and Products**
 - Deliverables: Initial tariff, future possible fare structures
Outreach: Initial tariff in April 2019

Planned Outreach Activities and Events

- Project Website
- Fare Inspection Event
- Focus Groups
- Municipal Working Sessions
- Partner Organization Workshops
- Subject Matter Workshops
- Community Meetings/Events
- Policy Development Working Group
- Public Advisory Meeting
- FMCB Briefings

Upcoming Events

- **Joint Community Meetings (February – March)**
 - Alongside the Better Bus Project and Fare Proposal
- **Municipal Working Sessions (February – March)**
- **Policy Development Working Group Meeting (March)**
- **Kickoff Event for Fare Inspection Outreach (April)–** The objectives for the event include:
 - Partnering with community organizations, elected officials and other transit agencies to identify the key issues
 - Developing a framework for the principles of MBTA fare inspections
 - Gathering input on further outreach strategies

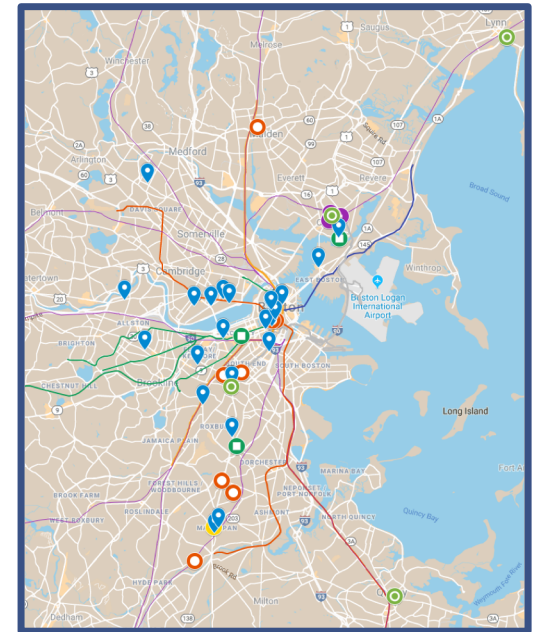
Ongoing community meetings and focus groups

AFC 2.0 Outreach Evaluation Metrics

The AFC 2.0 Policy Outreach initiative will be evaluated on the following metrics:

- **Geographic** - Are we visiting a variety of locations that encompass the full service area?
- **Modal** – Are we engaging customers who ride all modes of transit?
- **Population** – Are we identifying and engaging populations who may be impacted by changes in the system, including seniors, people with disabilities, cash users, low-income users, limited English speakers, and youth?

Feedback is recorded and tracked to determine how we can address it now or in the future.



**Outreach Locations Attended
or Planned as of February 1,
2019**

Upcoming presentations

Upcoming updates to the FMCB will include:

- AFC 2.0 on Commuter Rail- [March 2019](#)
- Outreach strategy for fare inspections – [March 2019](#)
- Tariff changes for initial rollout- [April 2019](#)
- Privacy policy revision- [May 2019](#)
- Fare modeling and future potential fare structures – [May 2019](#)
- Update on point of sale network – [May 2019](#)

User Testing



User testing

Our process

Gather initial
early focus
demo

Work with a professional
usability testing agency
to develop test scripts
with tasks that resemble
real life scenarios

Recruit users
as our riders
them try to
task

Document the problems
in a test report

Analyze the problems
and develop a usability
improvement plan

Make changes to the
design to improve the
user experience

If changes are significant,
test again

User testing

How we make sure we're asking the right people

Customers will be screened to ensure that those chosen are a representative sample of the larger population of MBTA customers, including:

- racial,
- geographic,
- socio-economic,
- education,
- age,
- language,
- ability,
- MBTA usage (frequency and mode), and
- preferred payment method for travel and other spending (cash, credit/debit card, Charlie Ticket, Charlie Card).

Sessions will be held throughout the day and evening to allow participation by customers who work various schedules.

Customer participants will be compensated for their time at the market rate for customer research.

User testing

Which parts of the system we do user testing on

All parts that are customer-facing or key to support customer-facing roles, including:

- New gates
- Transition gates
- Readers for platforms
- Readers for vehicles
- Fare vending machines for stations
- Fare vending machines for bus stops
- Handheld readers with inspection app
- Retail website, devices and app
- Mobile app
- Website for customers
- Website for corporate customers, schools, group sales and reduced fare management
- IVR (touch tone system) for the call center
- Software for call center reps to manage accounts
- Hardware and software for walk in centers like the Charlie Card Store

User testing: Lessons learned to date

WE HAVE ALREADY MADE CHANGES TO THE SYSTEM DESIGN BASED ON EARLY USER TESTING SESSIONS. FOR EXAMPLE:

What we learned	What we changed
The original payment card reader was impossible for users with limited manual dexterity to use	Replaced component with a new, user-friendly payment card reader
The design of ticket return tray made it hard to reach and grab the card and receipt	Raised height of tray, adjusted spring on door so that it opens wider
Users expect a screen to be a touch screen	All fare vending machines will have touch screens to make selections
Corporate customers need to be able to map the data in our system (who they buy passes for) to the data in their systems (such as payroll)	Added a field to allow employee IDs to be tracked
Website registration process was confusing	Modified registration screens to make it clearer that users can login with existing social accounts or create a new Charlie account
The reader on the transition gate was hard to reach for seated users	Moved the reader on the accessible transition gate to a lower position

Things we are looking to explore further

UPCOMING USER TESTING SESSIONS WILL FOCUS ON EXPLORING THE FOLLOWING ISSUES:

- Do customers understand how to tap their mobile app when boarding?
- Is the sequence for conducting fare inspections and issuing citations fast enough for real world scenarios?
- Is it easy to reach all the different parts of the fare vending machine (following changes to their positioning during the design process)?
- Do the fare vending machine screens make it easy for users to quickly make product selections?
- Is it easy to reload the mobile app using cash at fare vending machines and retail?
- Do retailers understand how to sell all of our different fare products?
- Are the vehicle validators bright enough (following changes to dim them to reduce the power draw)?

Test lab and demo space



Downtown Lab for testing and demonstrations



Mobile Unit for Community Outreach

We'll use these for:

- Testing to ensure the new system is working as designed
- Training our staff on our to use the new system
- Demonstrating functionality to get feedback from stakeholders
- Educating customers on the changes that are coming